1. (currently amended) A hard disk drive, comprising:

at least one storage disk;

at least one drive controller reading data from and writing data to the disk, the drive controller executing logic comprising:

executing a scrub cycle including:

reading at least one data unit;

determining whether an error exists in the data unit, and if so, undertaking at least one of: recording the error, ~~and~~ or reporting the error;

executing the reading and determining logic for subsequent data units;

if a user request for at least one of: a data read, ~~and~~ or a data write, is received, interrupting the scrub cycle to fulfill the request, and then ~~resuming the scrub cycle~~ waiting a delay period after fulfilling all user requests in a user request queue prior to resuming the scrub cycle, wherein the delay period is an adaptive delay period that depends on at least one of: a frequency, or a number, of user requests received from the RAID controller.

2. (original)   The disk drive of Claim 1, in combination with a RAID system, wherein the user request is received by the drive controller from a RAID controller.

3, 4. (canceled).

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5. (original)   The disk drive of Claim 1, wherein the disk drive is partitioned into data bands, the

drive controller maintaining a table indicating at least recent accesses to bands.

6. (original)   The disk drive of Claim 1, comprising executing the scrub cycle on data immediately

adjacent on the disk to data that is subject to a user request, as part of fulfilling the request.

7. (original)   The disk drive of Claim 1, comprising executing the scrub cycle on first data that has

been written more recently than second data, and then scrubbing the second data.

8. (original)   The disk drive of Claim 1, comprising executing the scrub cycle on areas of the disk

that have been more frequently accessed than other, less frequently used areas, and then scrubbing the less

frequently used areas.

9. (currently amended) A hard disk drive, comprising:

at least one storage disk;

at least one drive controller reading data from and writing data to the disk, the drive

controller executing logic comprising:

executing a scrub cycle including:

reading at least one data unit;

determining whether an error exists in the data unit, and if so, undertaking at least

one of: recording the error, ~~and~~ or reporting the error;

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executing the reading and determining logic for subsequent data units;

if a user request for at least one: a data read, ~~and~~ or a data write, is received, and if a current

scrub rate exceeds a threshold rate, interrupting the scrub cycle to fulfill the request, and then

resuming the scrub cycle, and otherwise not interrupting at least an existing scrub read of the scrub

cycle.

10. (original)   The disk drive of Claim 9, in combination with a RAID system, wherein the user

request is received by the drive controller from a RAID controller.

11. (original)   The disk drive of Claim 10, comprising waiting a delay period after fulfilling all user

requests in a user request queue prior to resuming the scrub cycle.

12. (currently amended)   The disk drive of Claim 11, wherein the delay period is an adaptive

delay period that depends on at least one of: a frequency, ~~and~~ or a number, of user requests received from

the RAID controller.

13. (original)   The disk drive of Claim 9, wherein the disk drive is partitioned into data bands, the

drive controller maintaining a table indicating at least recent accesses to bands.

14. (original)   The disk drive of Claim 9, comprising executing the scrub cycle on data immediately

adjacent on the disk to data that is subject to a user request as part of fulfilling the request.

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15. (original)   The disk drive of Claim 9, comprising executing the scrub cycle on first data that has

been written more recently than second data, and then scrubbing the second data.

16. (original)   The disk drive of Claim 9, comprising executing the scrub cycle on areas of the disk

that have been more frequently accessed than other, less frequently used areas, and then scrubbing the less

frequently used areas.

17. (currently amended)   A hard disk drive, comprising:

    at least one storage disk;

    at least one drive controller reading data from and writing data to the disk, the drive

controller executing logic comprising:

    executing a scrub cycle including:

        reading at least one data unit;

        determining whether an error exists in the data unit, and if so, undertaking at least

one of: recording the error, ~~and~~ or reporting the error;

        executing the reading and determining logic for subsequent data units, wherein the

scrub cycle is executed on first data that has been written more recently than second data, and

then is executed on the second data, wherein if a user request for at least one: a data read,

or a data write, is received, and if a current scrub rate exceeds a threshold rate, interrupting

the scrub cycle to fulfill the request, and then resuming the scrub cycle, and otherwise not

interrupting at least an existing scrub read of the scrub cycle.

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18. (currently amended)   The hard disk drive of Claim 17, wherein if a user request for at least

one of: a data read, ~~and~~ or a data write, is received, interrupting the scrub cycle to fulfill the request, and

then resuming the scrub cycle.

19. (original)   The disk drive of Claim 18, in combination with a RAID system, wherein the user

request is received by the drive controller from a RAID controller.

20.   (canceled).

21. (currently amended)   A hard disk drive, comprising:

    at least one storage disk;

    at least one drive controller reading data from and writing data to the disk, the drive

controller executing logic comprising:

    executing a scrub cycle including:

    <u>receiving a user data request;</u>

    <u>expanding the request to include one or more adjacent data scrub units;</u>

    <u>scrubbing the data scrub unit while servicing the request; and</u>

    ~~reading at least one data unit, the data unit being preferentially selected for the scrub~~

~~if it is immediately adjacent on the disk to data that has been subject to a user request;~~

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determining whether an error exists in the data scrub unit, and if so, undertaking at

least one of: recording the error, ~~and~~ or reporting the error;

~~executing the reading and determining logic for subsequent data units~~.

22. (currently amended)   The hard disk drive of Claim 21, wherein if a user request for at least

one of: a data read, ~~and~~ or a data write, is received, interrupting the scrub cycle to fulfill the request, and

then resuming the scrub cycle.

23. (original)   The disk drive of Claim 22, in combination with a RAID system, wherein the user

request is received by the drive controller from a RAID controller.

24. (original)   The hard disk drive of Claim 21, wherein if a user request for at least one: a data

read, and a data write, is received, and if a current scrub rate exceeds a threshold rate, interrupting the scrub

cycle to fulfill the request, and then resuming the scrub cycle, and otherwise not interrupting at least an

existing scrub read of the scrub cycle.

25. (currently amended)   A hard disk drive, comprising:

at least one storage disk;

at least one drive controller reading data from and writing data to the disk, the drive

controller executing logic comprising:

executing a scrub cycle including:

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reading at least one data unit;

determining whether an error exists in the data unit, and if so, undertaking at least

one of: recording the error, ~~and~~ or reporting the error;

executing the reading and determining logic for subsequent data units, wherein the

scrub cycle is executed on areas of the disk that have been more frequently accessed than

other, less frequently used areas, and then is executed on the less frequently used areas,

wherein if a user request for at least one: a data read, and a data write, is received, and if

a current scrub rate exceeds a threshold rate, interrupting the scrub cycle to fulfill the

request, and then resuming the scrub cycle, and otherwise not interrupting at least an existing

scrub read of the scrub cycle.

26. (currently amended)   The hard disk drive of Claim 25, wherein if a user request for at least

one of: a data read, ~~and~~ or a data write, is received, interrupting the scrub cycle to fulfill the request, and

then resuming the scrub cycle.

27. (original)   The disk drive of Claim 26, in combination with a RAID system, wherein the user

request is received by the drive controller from a RAID controller.

28. (canceled).

29. (canceled)

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